

03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN

LOCATION.--Lat 35°59'48", long 84°14'25", Anderson County, Hydrologic Unit 06010207, on left bank upstream from bridge on Bear Creek Road, 0.5 mi south of Oak Ridge, and at mile 14.4.

DRAINAGE AREA.--1.69 mi².

PERIOD OF RECORD.--December 1992 to April 19, 2005 (discontinued).

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 890 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good below 100 ft³/s. Flow affected by operations of the Department of Energy, Y-12 Plant. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 734 ft³/s, gage height, 5.30 ft, Nov. 4; minimum, 4.8 ft³/s, Nov. 20 and April 18, minimum gage height, 1.28 ft, Nov. 20; minimum daily, 9.9 ft³/s, Apr. 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	45	12	11	13	34	---	---	---	---	---
2	11	11	16	12	14	12	24	---	---	---	---	---
3	11	13	14	12	15	12	15	---	---	---	---	---
4	10	125	13	12	12	12	14	---	---	---	---	---
5	10	16	13	12	12	12	13	---	---	---	---	---
6	10	14	30	14	12	12	13	---	---	---	---	---
7	10	12	43	17	12	12	14	---	---	---	---	---
8	10	12	17	31	13	15	14	---	---	---	---	---
9	10	12	52	14	13	12	13	---	---	---	---	---
10	10	11	33	13	12	12	12	---	---	---	---	---
11	10	12	23	60	12	12	12	---	---	---	---	---
12	21	50	16	23	12	12	17	---	---	---	---	---
13	19	15	15	30	14	13	29	---	---	---	---	---
14	12	13	14	20	25	12	16	---	---	---	---	---
15	12	12	13	15	14	12	13	---	---	---	---	---
16	11	12	13	14	13	13	12	---	---	---	---	---
17	10	12	13	13	13	14	11	---	---	---	---	---
18	12	12	13	13	12	12	9.9	---	---	---	---	---
19	38	11	12	12	12	12	---	---	---	---	---	---
20	13	11	12	12	23	12	---	---	---	---	---	---
21	12	11	12	12	29	12	---	---	---	---	---	---
22	11	11	12	12	15	12	---	---	---	---	---	---
23	11	23	18	12	14	14	---	---	---	---	---	---
24	11	65	12	12	13	12	---	---	---	---	---	---
25	11	16	12	12	13	12	---	---	---	---	---	---
26	11	14	12	12	13	12	---	---	---	---	---	---
27	13	15	12	12	12	17	---	---	---	---	---	---
28	15	14	12	11	16	37	---	---	---	---	---	---
29	19	13	12	14	---	14	---	---	---	---	---	---
30	13	49	12	13	---	13	---	---	---	---	---	---
31	12	---	12	12	---	15	---	---	---	---	---	---
TOTAL	400	629	558	495	401	418	---	---	---	---	---	---
MEAN	12.9	21.0	18.0	16.0	14.3	13.5	---	---	---	---	---	---
MAX	38	125	52	60	29	37	---	---	---	---	---	---
MIN	10	11	12	11	11	12	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	10.1	12.0	12.2	13.2	14.4	13.5	13.1	12.2	12.1	12.7	10.8	11.4
MAX	12.9	21.0	18.0	19.6	28.0	20.4	23.8	19.2	17.5	20.8	15.5	17.8
(WY)	(2005)	(2005)	(2005)	(2002)	(2003)	(2002)	(1998)	(2003)	(1998)	(1999)	(1996)	(2004)
MIN	5.47	6.47	5.82	7.56	7.42	7.37	4.87	6.04	4.53	4.14	5.03	5.28
(WY)	(1995)	(1995)	(1995)	(1993)	(1995)	(1995)	(1995)	(1994)	(1995)	(1995)	(1995)	(1995)

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SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

WATER YEARS 1993 - 2005

ANNUAL TOTAL	5,433.9		
ANNUAL MEAN	14.8		12.5
HIGHEST ANNUAL MEAN			15.3
LOWEST ANNUAL MEAN			6.30
HIGHEST DAILY MEAN	134	Sep 17	205
LOWEST DAILY MEAN	9.9	Jan 15	3.3
ANNUAL SEVEN-DAY MINIMUM	10	May 4	3.6
MAXIMUM PEAK FLOW	734	Nov 4	a2,000
MAXIMUM PEAK STAGE	5.38	Nov 4	b14.36
INSTANTANEOUS LOW FLOW	c4.80	Nov 20	1.7
10 PERCENT EXCEEDS	19		17
50 PERCENT EXCEEDS	12		11
90 PERCENT EXCEEDS	10		5.0

a From area velocity estimated at contracted section downstream.

b Affected by backwater. From high-water marks.

